

REMARKS

Applicants would like to thank the Examiner for careful consideration given to this application. Claims 1-7 and 9-10 are pending in the application. No claim amendments are submitted at this time.

REJECTIONS UNDER 35 U.S.C. 103

Claims 1-4, 6, 7, and 9-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,040,382 to Hanes (hereinafter "Hanes") in view of U.S. Patent No. 5,879,596 to Roach (hereinafter "Roach") or U.S. Patent No. 6,040,370 to Wozny et al. (hereinafter "Wozny") or U.S. Patent No. 5,973,074 to Campbell et al. (hereinafter "Campbell") or U.S. Patent No. 5,905,118 to Padwa (hereinafter "Padwa").

It is well settled that to establish a *prima facie* case of obviousness, the USPTO must satisfy all of the following requirements. First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or to combine references. *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Second, the proposed modification must have a reasonable expectation of success, as determined from the vantage point of one of ordinary skill in the art at the time the invention was made. *Amgen v. Chugai Pharmaceutical Co.* 18 USPQ 2d 1016, 1023 (Fed Cir, 1991), *cert. denied* 502 U.S. 856 (1991). Third, the prior art reference or combination of references must teach or suggest all of the limitations of the Claims. *In re Wilson*, 165 USPQ 494, 496, (CCPA 1970).

The Examiner alleges that Hanes discloses all of the elements of Applicants' invention except for the weight average molecular weight limitation and argues that the disclosure of Roach would provide teaching regarding the average molecular weight that would lead a skilled artisan to the Applicants' claimed invention with only routine experimentation absent any showing of surprising or unexpected results. Applicants respectfully disagree.

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First and foremost, Hanes fails to teach or suggest a polymer blend having a "haze value not greater than 15% and a transmittance greater than 87%," and Roach, Wozny, Campbell, and Padwa fail to cure this deficiency. The Examiner concedes that Roach, Wozny, Campbell, and Padwa fail to provide "any teachings of transmittance or haze value." However, haze value and transmittance are claimed properties, and as such, are necessary to arrive at the Applicants' claimed invention. Therefore, this combination of references fails to teach or suggest each and every limitation of independent Claims 1, 9 and 10.

Moreover, this combination of references fails to provide a reasonable expectation for successfully preparing a compound having a "haze value not greater than 15% and a transmittance greater than 87%" because none of the cited references provide any hint as to how to achieve clarity using a polymer blend *consisting essentially of* components (i) and (ii). Accordingly, Hanes in view of Roach, Wozny, Campbell, and Padwa fails to render independent Claims 1, 9, and 10 obvious. Reconsideration of the Examiner's rejection of independent Claims 1, 9, and 10 is respectfully requested.

Claims 2-4 and 6-7 directly depend from and add further limitations to amended independent Claim 1 and are deemed allowable at least for the same reasons in combination with independent Claim 1. Reconsideration of the Examiner's rejection of Claims 2-4 and 6-7 is respectfully requested.

Of the cited references, Hanes is the only reference which describes a method for making a compound having good clarity. Therefore, additional comments regarding Hanes are provided herein below.

First, independent Claims 1, 9, and 10 describe a polymer blend *consisting essentially of* only two components (i) and (ii) having a "haze value not greater than 15% and a transmittance greater than 87%." The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristics" of the claimed invention (emphasis in original). *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA

1976) (See also MPEP 2111.03). Hanes clearly states that copolymers A (styrene – butadiene copolymer which corresponds to Applicants' component (i)) and B (styrene maleic anhydride which corresponds to Applicants' component (ii)) "are normally immiscible and when combined result in blends which are opaque or translucent" (column 10, lines 42-43). Hanes achieves the goal of improving the clarity of the disclosed polymer blends by the addition of a third component: "significantly improved clarity can be achieved in blends of two immiscible transparent polymers which have dissimilar refractive indices by addition of a third polymer which is selectively miscible with one of the two immiscible transparent polymers." (column 1, line 65 to column 2, line 3, emphasis added). Clearly based on the disclosure of Hanes, the addition of the third polymer materially affects the characteristics of the polymer of Hanes by improving the clarity of the polymer blend. Applicants' independent Claims 1, 9, and 10 exclude the presence of a third polymer. Accordingly, Hanes fails to teach or suggest a polymer blend *consisting essentially of* components (i) and (ii) having a low haze value and high transmittance as recited in the independent claims.

Secondly, independent Claims 1, 9, and 10 describe a composition in which an essential element of composition of Hanes has been omitted and its function has been retained. "Note that the omission of an element and retention of its function is an indicia of unobviousness" (emphasis in original). *In re Edge*, 359 F.2d 896, 149 USPQ 556 (CCPA 1966). Accordingly, independent Claims 1, 9, and 10 are at least unobvious over Hanes in view of the composition of independent Claims 1, 9, and 10 retaining improved clarity by combining components (i) and (ii) in the absence of a third polymer.

Finally, based on the disclosure of Hanes, and Hanes requiring a three component system to produce polymers having improved clarity, the preparation of a polymer blend containing only components (i) and (ii) and having transmittance and haze values as recited in independent Claims 1, 9 and 10, clearly represents surprising or unexpected results. Hanes clearly states that component (i) and component (ii) "are normally immiscible and when combined result in blends which are opaque or

translucent" (column 10, lines 42-43), and Applicants' blend components (i) and (ii) to obtain an essentially clear polymer blend. Accordingly, even should the Examiner not find the above arguments persuasive, Applicants respectfully rebut the Examiner's presumption of obviousness because "the claimed compounds possess unexpectedly advantageous or superior properties". *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963). Furthermore, Applicants submit that the inability of Hanes to prepare a polymer blend of only components (i) and (ii) having good optical clarity is so well documented in the disclosure of Hanes that Applicants need not submit an affidavit or supporting documentation to prove that the composition of independent Claims 1, 9 and 10 have improved clarity.

Claims 1-7, 9, and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No 5,180,535 to Yamaoka et al. (hereinafter "Yamaoka") in view of Roach, Hanes, Wozny, Campbell or Padwa.

The Examiner alleges that Yamaoka describes all of the elements of Applicants' invention except for the average weight molecular weight limitations and the monomer concentrations, but that the number average molecular weight and monomer concentration would have been obvious to one of ordinary skill in the art in view of Roach, Wozny, Campbell, or Padwa. In addition, the Examiner alleges that Hanes discloses methods for conferring transparency, and it would have been obvious to confer transparency on the composition of Yamaoka in light of Hanes. Applicants respectfully disagree.

First and foremost, Yamaoka fails to teach or suggest a composition having a "haze value not greater than 15% and a transmittance greater than 87%" as recited in independent Claim 1, and as conceded by the Examiner, Roach, Wozny, Campbell and Padwa, fails to provide "any teachings of transmittance or haze value." Hence, Hanes in view of Roach, Wozny, Campbell and Padwa fails to cure the deficiencies of Yamaoka. Accordingly, Yamaoka in view of Roach, Wozny, Campbell and Padwa fails to teach or suggest all of the limitations of independent Claims 1, 9, and 10.

Moreover, Yamaoka in view of Roach, Wozny, Campbell and Padwa fails to provide a reasonable expectation of successfully preparing a polymer blend *consisting essentially of* components (i) and (ii) having a "haze value not greater than 15% and a transmittance greater than 87%" because none of the cited references provide any hint as to how to achieve such clarity. Accordingly, this combination of references fails to render obvious independent Claims 1, 9, and 10.

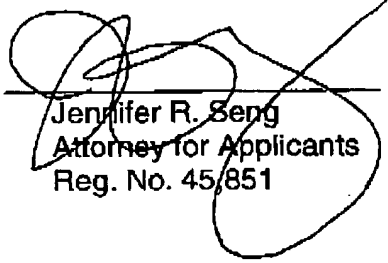
Additionally, as described above, independent Claims 1, 9, and 10 describe a composition *consisting essentially of* components (i) and (ii). Therefore, the addition of the third polymer of Hanes with the polymers of Yamaoka to confer transparency on the composition of Yamaoka is outside the scope of independent Claims 1, 9, and 10. Accordingly, the Examiner has failed to make a *prima facie* case for obviousness. Reconsideration of the Examiner's rejection of independent Claims 1, 9, and 10 is respectfully requested.

Claim 2-7 directly or indirectly depend from and add further limitations to independent Claim 1 and are deemed allowable at least for the same reasons in combination with independent Claim 1. Reconsideration of the Examiner's rejection of Claims 2-7 is respectfully requested.

Pending Claims 1-7 and 9-10 are now in condition for allowance and notice to such effect is respectfully requested. Should the Examiner have any questions regarding this application, the Examiner is invited to initiate a telephone conference with the undersigned.

Respectfully submitted,

By



Jennifer R. Seng
Attorney for Applicants
Reg. No. 45,851

LANXESS Corporation
Law & Intellectual Property Department
111 RIDC Park West Drive
Pittsburgh, Pennsylvania 15275-1112
(412) 809-2232
FACSIMILE PHONE NUMBER:
(412) 809-1054

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